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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/297,737	05/04/2001	Juliette Quartararo	PET-1761	1202
23599	7590	03/04/2004		
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201				
			EXAMINER GRIFFIN, WALTER DEAN	
			ART UNIT 1764	PAPER NUMBER

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/297,737

Applicant(s)

QUARTARARO ET AL.

Examiner

Walter D. Griffin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5,6,8-10,12-15,17-19 and 21-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5,6,8-10,12-15,17-19 and 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 5, 2004 has been entered.

Response to Amendment

The objection to claim 9 as described in paper no.21 has been withdrawn in view of the amendment filed on January 30, 2004.

Claim Objections

Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 15 does not further limit claim 3 because claim 3 already contains the limitation that the catalyst contains cobalt or nickel.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 23, 25, 26, 28, and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The specification as filed does not contain any disclosure that the matrix does not contain zinc. The alternative matrix recited in the specification is zinc aluminate. Therefore, zinc aluminate may be excluded in the claims. However, this does not provide support the claim language that the matrix does not contain zinc.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is indefinite because the expression "the group VIIB element" lacks proper antecedent basis in claim 22.

Claim 15 is indefinite because the expression "the group VIII element" lacks proper antecedent basis in claim 3 or 22.

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Simpson (US 5,403,806).

The Simpson reference discloses a catalyst that comprises a Group VI metal component (10+ wt%) such as molybdenum, a group VIII metal (0.5 to 15 wt%) such as cobalt or nickel, and a phosphorus component (0.5 to 15 wt%) on a matrix such as alumina. The catalyst also comprises an additional promoter such as manganese. See column 6, lines 3-56; column 7, lines 66-68; and column 8, lines 1-23.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3, 5, 6, 8-10, 12-15, 17-19, 21, 22, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjornson et al. (US 4,693,991) in view of Sudhakar et al. (US 5,525,211) and/or Bijwaard et al. (US 4,385,984).

Applicants are claiming a catalyst and hydrotreating process using the same.

The reference of Bjornson discloses a hydrotreating process employing a catalyst. See column 3, lines 65-68 and column 4, lines 1-10. The catalyst contains components including rhenium (0.2-4 wt%), nickel (0.5-8 wt%), at least one matrix in the form of alumina and zinc titanate, and molybdenum (0.5-8 wt%). See column 9, lines 30-45. Suitable feeds include gas oils. See column 4, lines 13-16. A portion of the hydrotreating feed can be cracked. See column 6, lines 45-49.

The reference of Bjornson succeeds in disclosing a hydrotreating process employing the use of a catalyst with components corresponding to those claimed by applicants.

A difference is noted between the reference of Bjornson and applicants' claimed invention. Bjornson is silent about the disclosed catalyst containing a promoter such as phosphorus, bismuth, or halogen (fluorine).

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The references of Bijwaard and/or Sudhakar are cited to illustrate that phosphorus, bismuth, or halogen are known promoters for hydrotreating catalysts. See Bijwaard at column 4, lines 41-44 and Sudhakar at column 4, lines 24-28.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the catalyst of Bjornson to include promoters such as phosphorus, bismuth, and/or halogen because the references of Bijwaard and/or Sudhakar illustrate that such components are known to desirably promote hydrotreating catalysts.

Claims 5, 6, 8-10, 12-14, 18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (US 5,403,806).

The Simpson reference discloses a catalyst that comprises a Group VI metal component (10+ wt%) such as molybdenum, a group VIII metal (0.5 to 15 wt%) such as cobalt or nickel, and a phosphorus component (0.5 to 15 wt%) on a matrix such as alumina. The catalyst also comprises an additional promoter such as manganese. The sulfided form of the catalyst can be used in a hydrocarbon hydrotreating process. Suitable feeds include residual fractions. See column 6, lines 3-56; column 7, lines 66-68; column 8, lines 1-23; and column 10, line 3 through column 12, line 10.

The Simpson reference does not disclose the claimed amounts of each component.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the catalyst of Simpson by utilizing the claimed amounts of each component because one would adjust component to maximize the effectiveness of the catalyst in the disclosed process.

Response to Arguments

The argument and evidence provided in the affidavit of October 2, 2003 that unexpected results are obtained through the use of both rhenium and phosphorus are not persuasive because the evidence is not commensurate in scope with the claims. The claims are not limited to the combination of rhenium and phosphorus.

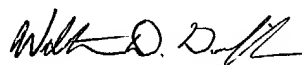
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is (571) 272-1447. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Walter D. Griffin
Primary Examiner
Art Unit 1764

WG

February 27, 2004